Claims

I claim:

1. A method comprising: controlling self-renewal of a population of human-compatible stem cells in an intracellular environment substantially free of p18.

2. The method of claim 1, wherein said stem cells are predominantly undifferentiated stem cells.

3. The method of claim 1, wherein said human-compatible stem cells are human stem cells.

4. The method of claim 1, wherein said human-compatible stem cells express less wild-type p18 protein than do wild-type stem cells.

5. The method of claim 1, wherein said self-renewal of said population occurs at least in part in a human.

6. The method of claim 5, wherein said self-renewal of said population in a human comprises implanting in said human a stem cell timplant therapeutic for said human.

7. The method of claim 6, wherein said stem cells are predominantly undifferentiated stem cells.

8. The method of claim 6, wherein said human-compatible stem cells are human stem cells.

9. The method of claim 6, wherein said human-compatible stem cells express less wild-type p18 protein than do wild-type stem cells.

10. A composition of matter comprising a self-renewing population of human-compatible stem cells having an intracellular environment substantially free of p18.

11. The composition of matter of claim 10, wherein said stem cells are predominantly undifferentiated stem cells.

12. The composition of matter of claim 10, wherein said human-compatible stem cells are human stem cells.

13. The composition of matter of claim 10, wherein said human-compatible stem cells express less wild-type p18 protein than do wild-type stem cells.

14. The composition of matter of claim 10, wherein said self-renewal of said population occurs at least in part in a human.

15. The composition of matter of claim 14, wherein said self-renewal of said population in said human comprises implanting a stem cell implant therapeutic for said human.

16. The composition of matter of claim 15, wherein said stem cells are predominantly undifferentiated stem cells.

17. The composition of matter of claim 15, wherein said human-compatible stem cells are human stem cells.

18. The composition of matter of claim 15, wherein said human-compatible stem cells express less wild-type p18 protein than do wild-type stem cells.

19. A method comprising:

a) controlling self-renewal of a population of stem cells in an intracellular environment substantially free of p18;

b) controlling self-renewal of a control population of stem cells in an intracellular environment containing p18;

c) adding to said self-renewing population and to said self-renewing control population a candidate composition;

d) assaying an effect of said candidate composition on said self-renewing population and on said self-renewing control population; and

e) comparing the effect of said candidate composition on said self-renewing population and on said self-renewing control population.

20. The process of claim 19, said candidate composition selected from the group consisting of : a polypeptide, an organic chemical and an inorganic chemical.

21. The process of claim 20, said candidate composition comprising an organic chemical.

22. The process of claim 21, said candidate composition comprising a plurality of organic chemicals.